

Title (en)

Method of determining the amount of particulate accumulated in a particulate filter

Title (de)

Verfahren zur Bestimmung der in einem Filter angesammelten Partikelmenge

Title (fr)

Méthode pour déterminer la quantité des particules accumulées dans un filtre à particules

Publication

**EP 1333165 A1 20030806 (EN)**

Application

**EP 03001562 A 20030123**

Priority

IT TO20020072 A 20020125

Abstract (en)

There is described a method of determining the amount of particulate accumulated in a particulate filter (9), based on determining possible variations in the spatial distribution and/or physical-chemical properties of the particulate as a function of engine operating conditions and past particulate accumulation in the particulate filter. More specifically, to begin with, there are determined and memorized in map form a number of reference values ( beta MAP) of a parameter ( beta ) defining a relationship between the amount of particulate (mS) accumulated in the particulate filter (9) and the pressure drop ( DELTA PDPF) across the particulate filter (9), each of the reference values ( beta MAP) relating to a respective steady engine operating condition in which particulate is accumulated in the particulate filter (9). In a given engine operating condition, an operating value ( beta MOD) of the parameter ( beta ) is then determined as a function of the reference value ( beta MAP) of the parameter ( beta ) relative to the same steady engine operating condition, and of past particulate accumulation in the particulate filter (9). And the operating value ( beta MOD) of the parameter ( beta ) is used to calculate the amount of particulate (mS) accumulated in the particulate filter (9). A final corrected value mS\_CORR of particulate accumulated in the filter, calculated taking into account the effects of partial regenerations (e.g. NOx-based spontaneous regeneration) and prolonged vehicle disuse ("parking" effect), is used to activate regeneration of the filter. <IMAGE>

IPC 1-7

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Citation (search report)

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